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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,193	04/02/2004	Nicholas Gerald Grey	100103.52683US	7523
30902	7590	06/22/2005	EXAMINER	
SHOOK, HARDY & BACON L.L.P. 600 14TH STREET NW SUITE 800 WASHINGTON, DC 20005-2004				TILL, TERENCE R
		ART UNIT		PAPER NUMBER
		1744		

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/816,193	GREY, NICHOLAS GERALD
	Examiner Terrence R. Till	Art Unit 1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-16 and 31-36 is/are allowed.
- 6) Claim(s) 17-30,37,39,40,42-50,53-56 and 58-65 is/are rejected.
- 7) Claim(s) 38,41,51,52,57 and 66-68 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 10/697,570.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/04/2005</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

## **DETAILED ACTION**

### ***Priority***

1. This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This is a continuation in part of Application No. 10/697,570, filed 10/31/03 and is a Continuation in part of Application No. 10/700,674, filed 11/5/03." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.
2. Claims 52 are objected to because of the following informalities: In the preliminary amendment filed 2/7/05, there are two claim 52's. The first claim 52 should have been claim --42--. This is most likely a typographical error and should be fixed in the next amendment. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 17, 18, 24, 26, 28, 30, 39, 40, 45 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Mattsson.
5. The patent to Mattsson discloses a surface cleaning apparatus, comprising: a body 10 having a forward compartment 13', an intermediate compartment 19 and rear compartment (see figure 3), wherein the intermediate compartment is defined by an inclined wall 18 between the

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forward and intermediate compartments, a wall (see figure 3) between the intermediate and rear compartments, and side walls (see figure 3), an elongate rotatable brush 13,14 driven by an electric motor 15, the elongate rotatable brush extending across the forward compartment; and a belt 17 connecting the electric motor and elongate rotatable brush. Mattsson also discloses the electric motor is located in the rear compartment, the belt is enclosed within a tunnel that passes through the intermediate compartment, the intermediate compartment includes a tray 19 that can be removed and emptied so as to discharge debris, and wherein the wall between the forward and intermediate compartments is inclined rearwardly. With respect to the limitation of "at least one side of the tray forms a wall of said body", it is considered that at least one of the walls of the tray form an interior wall of the body.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Watanabe et al.

9. The patent to Mattsson discloses a surface cleaning apparatus, comprising: a body 10 having a forward compartment 13', an intermediate compartment 19 and rear compartment (see figure 3), wherein the intermediate compartment is defined by an inclined wall 18 between the forward and intermediate compartments, a wall (see figure 3) between the intermediate and rear compartments, and side walls (see figure 3), an elongate rotatable brush 13,14 driven by an electric motor 15, the elongate rotatable brush extending across the forward compartment; and a belt 17 connecting the electric motor and elongate rotatable brush. Mattsson also discloses the electric motor is located in the rear compartment, the belt is enclosed within a tunnel that passes through the intermediate compartment, the intermediate compartment includes a tray 19 that can be removed and emptied so as to discharge debris, and wherein the wall between the forward and intermediate compartments is inclined rearwardly. Mattsson does not disclose the handle having an offset portion and being rotatable about an offset axial direction. The patent to Watanabe et al. discloses a device similar to that of Mattsson including a handle 6 rotatable about an offset axial direction of the handle and about an axis transverse to the axial direction of the handle to facilitate steering of the apparatus (see column 5, lines 45-55). It would have been obvious to a person skilled in the art at the time the invention was made to substitute the handle of Mattsson with a handle rotatable about an axial direction of the handle and about an off-set axis transverse to the axial direction in view of the teaching of Watanabe in order to have a more maneuverable cleaning device and ease manipulation by the user.

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10. Claims 20, 21, 43, 44, 58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Japanese patent to Komori (cited in IDS).

11. Mattsson is considered to disclose all of the recited subject matter with exception of having an auxiliary brush. The Japanese patent to Komori discloses a floor sweeping device in which he discloses an auxiliary brush 5' connected to a cylindrical brush 4' by a gear arrangement 9'. It would have been obvious to a person skilled in the art at the time the invention was made to provide the device of Mattsson with an auxiliary brush in view of the teaching of Japanese patent to Komori in order to more effectively sweep debris from the sides towards the cylindrical brush.

12. Claims 22, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Zahuranec et al.

13. Mattsson does not disclose one of the sidewalls being removable to facilitate removal of debris. The patent to Zahuranec et al. discloses of a floor-sweeping device similar to that of Mattsson and further discloses one of the sidewalls, which includes a cover 26 removable to facilitate removal of debris from the tray 60. It would have been obvious to a person skilled in the art at the time the invention was made to modify the device of Mattsson to have one of the side walls be removable to facilitate removal of debris in view of the teaching of Zahuranec et al. as both methods of removing debris were art-recognized equivalents at the time the invention was made and either would function suitably. With respect to claim 25, Mattsson, as modified by Watanabe et al., would have the tunnel is arranged at a side remote from the removable sidewall.

14. Claims 27 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson.

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15. Mattsson discloses the claimed invention except for the wall between the forward and intermediate compartments has an angle of inclination of from 15 to 20 degrees. It would have been an obvious matter of design choice to modify the wall between the forward and intermediate compartments to have an angle of inclination of from 15 to 20 degrees, since applicant has not disclosed that this angle of inclination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the wall of Mattsson at the angle of inclination shown.

16. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Japanese patent to Tokyo electric.

17. Mattsson does not disclose a front part of the forward wall being movable to expose bristles on the elongate rotatable brush at the front part of the forward compartment. The patent to Tokyo electric discloses a vacuum cleaner body similar to that of Mattson (see figures 1 and 2) and further discloses a movable cover 6 to expose the bristles. It would have been obvious to a person skilled in the art at the time the invention was made to provide a movable cover to the device of Mattsson in view of the teaching of Tokyo electric to expose bristles on the elongate rotatable brush at the front part of the forward compartment to clean walls and corners.

18. Claims 37, 53-55 and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of French patent to RE Enrico.

19. Mattsson discloses most of the recited subject matter as listed above, but does not disclose a lower front region of the body being chamfered so that bristles of the elongate brush protrude from the body in the region of the chamfer such that, when the apparatus is inclined relative to a surface to be cleaned, contact between the bristles and the surface to be cleaned is

increased. The French patent to RE Enrico discloses a sweeping machine having a lower front region (see figures 5 and 6) in which the body is chamfered. It would have been obvious to a person skilled in the art at the time the invention was made to provide a chamfered region in the lower front region of Mattsson in view of the teaching of French patent to RE Enrico in order to expose more of the surface area of the bristles and increase the cleaning ability of the sweeper of Mattsson. With respect to claim 61, Mattsson, as modified by RE Enrico, discloses the claimed invention except for the wall between the forward and intermediate compartments has an angle of inclination of from 15 to 20 degrees. It would have been an obvious matter of mechanical expedience to modify the wall between the forward and intermediate compartments to have an angle of inclination of from 15 to 20 degrees, since applicant has not disclosed that this angle of inclination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the wall of Mattsson at the angle of inclination shown.

20. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson as modified by Re Enrico, as applied to claim 55 above, and further in view of Watanabe et al.
21. Mattsson, as modified by Re Enrico, does not disclose the handle having an offset portion and being rotatable about an offset axial direction. The patent to Watanabe et al. discloses a device similar to that of Mattsson including a handle 6 rotatable about an offset axial direction of the handle and about an axis transverse to the axial direction of the handle to facilitate steering of the apparatus (see column 5, lines 45-55). It would have been obvious to a person skilled in the art at the time the invention was made to substitute the handle of Mattsson with a handle rotatable about an axial direction of the handle and about an off-set axis transverse to the axial

direction in view of the teaching of Watanabe in order to have a more maneuverable cleaning device and ease manipulation by the user.

22. Claims 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Bewley et al.

23. Mattsson discloses all the recited subject matter with exception of further comprising a cleaning strip assembly pivotably mounted on an underside of the body. The patent to Bewley et al. discloses a sweeping apparatus that has a cylindrical roller and an adjustable cleaning strip 56 mounted aft of the roller. The cleaning strip comprises an elongate support member 64 and a flexible strip 60 extending radially from the support member; the elongate support member extends along substantially the entire length of the body (see figure 2). It would have been obvious to a person skilled in the art at the time the invention was made to provide the device of Mattsson with a cleaning strip assembly pivotably mounted on an underside of the body in view of the teaching of Bewley et al. in order to maximize the amount of dirt entering into the device (see Bewley et al. Column 1; lines 45-50).

24. Claims 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson, as modified by French patent to RE Enrico, as applied to claim 54 above, and further in view of Bewley et al.

25. Mattsson, as modified by French patent to RE Enrico, discloses all the recited subject matter with exception of further comprising a cleaning strip assembly pivotably mounted on an underside of the body. The patent to Bewley et al. discloses a sweeping apparatus that has a cylindrical roller and an adjustable cleaning strip 56 mounted aft of the roller. The cleaning strip comprises an elongate support member 64 and a flexible strip 60 extending radially from the

support member; the elongate support member extends along substantially the entire length of the body (see figure 2). It would have been obvious to a person skilled in the art at the time the invention was made to provide the device of Mattsson, as modified by French patent to RE Enrico, with a cleaning strip assembly pivotably mounted on an underside of the body in view of the teaching of Bewley et al. in order to maximize the amount of dirt entering into the device (see Bewley et al. Column 1; lines 45-50).

***Allowable Subject Matter***

26. Claims 1-16 and 31-36 are allowed.
27. Claims 38, 41, 51, 52, 57 and 67-68 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
28. With respect to claim 68, should applicant choose to incorporate that subject matter into claim 54, it will be evaluated for double patenting.
29. The following is an examiner's statement of reasons for allowance: With respect to claim 1, the prior art does not disclose nor render obvious the claimed combination of subject matter, particularly the handle movable between an upright position and steering positions by rotation about an axis transverse to the axial direction of the handle, said handle being further rotatable around a second axis in said steering positions; said second axis of rotation being offset from the axial direction of the handle, wherein the body further comprises a collar that prevents rotation of the handle around said second axis in the upright position. It is the combination of

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the handle rotatable about a second axis offset from the axial direction of the handle and the body having a collar that prevents rotation of the handle around said second axis in the upright position that is not found nor suggested in any of the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

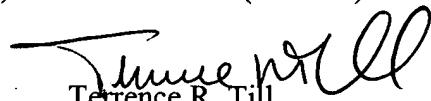
***Conclusion***

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Hwang and Baird disclose other sweepers using cleaning strips. The patents to Williams and Sutherland disclose implements that have locking mechanisms located on the handle to prevent movement about an axis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sun U. Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terrence R. Till  
Primary Examiner  
Art Unit 1744

trt